

Claims

What is claimed is:

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Add A8 1. A carriage for an inkjet printer comprising:
a mounting portion;
a printhead operably secured to said mounting portion;
an ink reservoir pivotally secured to said mounting portion at a pivot point and
having an engaged position in which the ink reservoir is in fluid communication with said
printhead, and an open position, in which the ink reservoir is pivoted about said pivot
10 point away from said printhead, thereby providing easy access to the printhead.
2. The carriage for an inkjet printer of claim 1, further including:
a plurality of ink reservoirs; and
a plurality of printheads;
15 wherein one of each plurality of ink reservoirs is in fluid communication with a
respective one of each plurality of printheads in said engaged position.
3. The carriage for an inkjet printer of claim 1, further including a channel
extending between said ink reservoir and said printhead in said engaged position.
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4. The carriage for an inkjet printer of claim 3, wherein said channel is
substantially air tight when said carriage is in said engaged position such that a vacuum
formed in the channel will cause ink to flow, and said channel is not substantially air tight
when the carriage is moved out of its engaged position, thereby preventing ink from
25 flowing through the channel.
5. The carriage for an inkjet printer of claim 1, wherein said mounting
portion is a printhead mounting-portion and further including an ink reservoir mounting-
portion; and wherein said printhead mounting-portion is pivotally secured to said ink
30 reservoir mounting-portion at said pivot point.

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6. The carriage for an inkjet printer of claim 5, wherein said printhead is detachably secured to said printhead mounting-portion.

7. The carriage for an inkjet printer of claim 6, wherein said ink reservoir is detachably secured to said ink reservoir mounting-portion.

8. The carriage for an inkjet printer of claim 5, further including:
a resistive detent on one of said printhead mounting-portion and said ink reservoir mounting-portion; and,

a tab extending from the other of said printhead mounting-portion and said ink reservoir mounting-portion for operably engaging said resistive detent when said carriage is in said open position, thereby holding the carriage in said open position to further facilitate removal of the printhead.

9. The carriage for an inkjet printer of claim 5, further including a shaft extending from one of said printhead mounting-portion and said ink reservoir mounting-portion, said shaft having a mating end portion; and

a mating hole for receiving said shaft in the other of said printhead mounting-portion and said ink reservoir mounting-portion, said mating hole including a notch for operably receiving said mating end portion of said shaft only when said printhead mounting-portion and said ink reservoir mounting-portion are in a defined position with respect to each other.

10. The carriage for an inkjet printer of claim 5, further including a latching mechanism for detachably securing said printhead mounting portion to said ink reservoir mounting-portion.

11. The carriage for an inkjet printer of claim 10, wherein said latching mechanism includes:

a handle pivotally secured to one of said printhead mounting-portion and said ink reservoir mounting-portion at a pivot;

a joining arm extending from said handle; and

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a hook for receiving said joining arm extending from the other of said printhead mounting-portion and said ink reservoir mounting-portion such that said hook operably engages said joining arm when said handle is pivoted about said pivot.

5 12. An inkjet printer comprising:

a chassis;

a motor;

a carriage operably secured to the chassis and driven by the motor for reciprocal movement relative to the chassis;

10 a printhead operably secured to said carriage;

an ink reservoir operably secured to said carriage such that it may pivot about said printhead at a pivot point, said carriage having an engaged position in which the ink reservoir is in fluid communication with said printhead, and an open position, in which the ink reservoir is pivoted about said pivot point away from said printhead, thereby providing easy access to the printhead.

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13. The inkjet printer of claim 12, further including a channel extending between said ink reservoir to said printhead when said carriage is in said engaged position.

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14. The inkjet printer of claim 13, wherein said channel is substantially air tight when said carriage is in said engaged position such that a vacuum formed in the channel will cause ink to flow, and said channel is not substantially air tight when the carriage is moved out of its engaged position, thereby preventing ink from flowing through the channel.

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15. The inkjet printer of claim 12, wherein said printhead is operably secured to said carriage at a printhead mounting-portion, and said ink reservoir is operably secured to said carriage at an ink reservoir mounting-portion; and wherein said printhead mounting-portion is pivotally secured to said ink reservoir mounting-portion at said pivot point.

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16. The inkjet printer of claim 12, further including:
a second ink reservoir operably secured to said carriage; and,
a second printhead operably secured to said carriage,
wherein said first ink reservoir includes black ink, and said second ink reservoir
includes a plurality of chambers for receiving a plurality of different colored inks.

17. A method for replacing a first printhead operably secured to a carriage of an inkjet printer with a second printhead, the inkjet printer having an on-axis ink reservoir pivotally secured to the carriage defining an engaged position in which the ink reservoir is in fluid communication with the printhead, said method including the steps of:

locating the carriage containing the first printhead;
pivoting the ink reservoir out of its engaged position such that the first printhead is exposed and easily accessible in the carriage, and thereby automatically disconnecting the fluid communication between the ink reservoir and the first printhead;
15 removing the first printhead from the carriage;
installing the second printhead in the carriage such that the second printhead is operably secured to the carriage; and,
returning the ink reservoir to its engaged position thereby automatically placing the ink reservoir and second printhead in fluid communication with each other.

18. The method for replacing a first printhead operably secured to a carriage of an inkjet printer with a second printhead of claim 17, wherein said locating the first printhead step includes positioning the carriage in the printer such that it is easily accessible through an access door on the printer.

19. The method for replacing a first printhead operably secured to a carriage of an inkjet printer with a second printhead of claim 17, wherein said first and second printheads are detachably secured to said carriage.

30 20. The method for replacing a first printhead operably secured to a carriage of an inkjet printer with a second printhead of claim 17, further including the steps of:

unlatching a latching mechanism extending between structures containing the ink reservoir and first printhead to initiate said step of pivoting the ink reservoir out of its engaged position; and

latching the latching mechanism following said step of returning the ink reservoir
5 to its engaged position.